



Rome directorate signs contracts for AMSTE II program

by **Francis L. Crumb, Information Directorate**

ROME, N.Y.— The Air Force Research Laboratory (AFRL) Information Directorate has awarded two contracts, totaling more than \$23.3 million, for research in support of the Affordable Moving Surface Target Engagement II (AMSTE II) program.

The directorate is serving as agent for the program, sponsored by the Defense Advanced Research Projects Agency (DARPA) of Arlington, Va. AMSTE is a DARPA initiative to investigate and develop technologies to affordably engage moving surface targets such as tanks, tactical ballistic missile transporters and small boats.

Competing contracts have been awarded to Northrop Grumman Corp. of Melbourne, Fla., (\$12,192,544) and Raytheon Co. of El Segundo, Calif., (\$11,169,729). The two contractors will be doing development and integration of technologies in support of experiments to be performed at the Eglin Air Force Base Test Range, Florida, and the Nellis Air Force Base Test Range in Nevada. Work on both contracts will be completed by the end of this year and will lead to further enhancements of the system architecture next year.

AMSTE research will develop a new capability for the military services to strike with precision, moving surface threats from long ranges and in all weather conditions. The program is

primarily focusing on Ground Moving Target Indication (GMTI) radar, a sensor that can detect moving surface vehicles from long distances.

Moving ground targets pose a significant challenge to current weapon systems because of the dynamics involved. Idle vehicles can accelerate to speeds of 60 miles per hour in less than 10 seconds — and stop in shorter periods of time. While typical military vehicles do not tend to accelerate or stop that fast, they still pose a significant challenge maintaining accurate tracks. Vehicles also tend to mix with other vehicles, travel within groups or convoys, start and stop often, and use terrain to block their detection.

Several initial studies conducted over the past year investigated the feasibility of precision engagement of moving ground targets using advanced sensor systems. The results of these studies concluded that obtaining the high accuracy required for precision fire control is possible; however, the real challenge is maintaining the track of the target during the battle management process.

Directorate engineers will use technology in development over the next several years to enhance the capability to strike these moving ground targets with precision accuracy. @